Gilles Ausias

List of Publications by Year
in descending order

71 papers	2,127 citations	201575 27 h-index	243529 44 g-index
72 all docs	72 docs citations	72 times ranked	1726 citing authors

#	Article	IF	Citations
1	Macroscopic modeling of the evolution of fiber orientation during flow. , 2022, , 77-121.		4
2	Automated fibre placement process for a new hybrid material: A numerical tool for predicting an efficient heating law. Composites Part A: Applied Science and Manufacturing, 2021, 144, 106360.	3.8	10
3	Dynamics of gas bubbles in fiber suspensions. International Journal of Multiphase Flow, 2021, 145, 103823.	1.6	0
4	Rigid fiber motion in slightly non-Newtonian viscoelastic fluids. Physics of Fluids, 2021, 33, .	1.6	7
5	Axisymmetric flow simulations of fiber suspensions as described by 3D probability distribution function. Journal of Non-Newtonian Fluid Mechanics, 2020, 284, 104367.	1.0	8
6	Simulation of laser heating distribution for a thermoplastic composite: effects of AFP head parameters. International Journal of Advanced Manufacturing Technology, 2020, 110, 2105-2117.	1.5	16
7	A smoothed particle hydrodynamics study of a non-isothermal and thermally anisotropic fused deposition modeling process for a fiber-filled composite. Physics of Fluids, 2020, 32, .	1.6	16
8	Thermoplastic foaming with thermo-expandable microcapsules: Mathematical modeling and numerical simulation for extrusion process. Chemical Engineering Science, 2020, 227, 115852.	1.9	10
9	Thermo-expandable microcapsule as a blowing agent for producing thermoplastic elastomer vulcanized syntactic foam. AIP Conference Proceedings, 2020, , .	0.3	0
10	Numerical investigation of dilute suspensions of rigid rods in power-law fluids. Journal of Non-Newtonian Fluid Mechanics, 2020, 280, 104280.	1.0	5
11	Modeling and Numerical Simulation of Laminated Thermoplastic Composites Manufactured by Laser-Assisted Automatic Tape Placement. International Polymer Processing, 2020, 35, 471-480.	0.3	0
12	Fiber suspension in 2D nonhomogeneous flow: The effects of flow/fiber coupling for Newtonian and power-law suspending fluids. Journal of Rheology, 2019, 63, 405-418.	1.3	23
13	Numerical simulation and modeling of the die swell for fiber suspension flows. Journal of Non-Newtonian Fluid Mechanics, 2019, 274, 104205.	1.0	26
14	A smoothed particle hydrodynamics simulation of fiber-filled composites in a non-isothermal three-dimensional printing process. Physics of Fluids, 2019, 31, .	1.6	22
15	A model for the stress tensor in dilute suspensions of rigid spheroids in a generalized Newtonian fluid. Journal of Non-Newtonian Fluid Mechanics, 2019, 264, 73-84.	1.0	8
16	Thermal or electrical bulk properties of rod-filled composites. International Journal of Engineering Science, 2018, 133, 219-230.	2.7	9
17	Smoothed particle hydrodynamics (SPH) modeling of fiber orientation in a 3D printing process. Physics of Fluids, 2018, 30, .	1.6	54
18	Numerical evaluation of a single ellipsoid motion in Newtonian and power-law fluids. AIP Conference Proceedings, 2018, , .	0.3	4

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19	Model for thermal degradation of carbon fiber filled poly(ether ether ketone). Polymer Degradation and Stability, 2017, 143, 20-25.	2.7	17
20	Steady-shear rheological properties for suspensions of axisymmetric particles in second-order fluids. Journal of Non-Newtonian Fluid Mechanics, 2017, 239, 62-72.	1.0	14
21	Solubility and interfacial tension of thermoplastic polyurethane melt in supercritical carbon dioxide and nitrogen. Journal of Supercritical Fluids, 2017, 122, 52-57.	1.6	30
22	A rheological constitutive model for semiconcentrated rod suspensions in Bingham fluids. Physics of Fluids, 2017, 29, .	1.6	24
23	The effect of shear-thinning behaviour on rod orientation in filled fluids. Journal of Fluid Mechanics, 2016, 798, 350-370.	1.4	24
24	Modeling interactions in carbon nanotube suspensions: Transient shear flow. Journal of Rheology, 2016, 60, 1069-1083.	1.3	8
25	Apparent yield stress in rigid fibre suspensions: the role of attractive colloidal interactions. Journal of Fluid Mechanics, 2016, 802, 611-633.	1.4	13
26	Shear-thinning in concentrated rigid fiber suspensions: Aggregation induced by adhesive interactions. Journal of Rheology, 2016, 60, 1279-1300.	1.3	30
27	Investigation of interfacial fracture behavior on injection molded parts. AIP Conference Proceedings, 2016, , .	0.3	2
28	Mechanical enhancement of cement-stabilized soil by flax fibre reinforcement and extrusion processing. Materials and Structures/Materiaux Et Constructions, 2016, 49, 1143-1156.	1.3	29
29	Rheological Modeling of Non-dilute Rod Suspensions. , 2015, , 77-117.		6
30	A novel pull-out device used to study the influence of pressure during processing of cement-based material reinforced with coir. Construction and Building Materials, 2015, 78, 224-233.	3.2	30
31	Rheo-optical response of carbon nanotube suspensions. Journal of Rheology, 2015, 59, 499-524.	1.3	12
32	A Second-Gradient Theory of Dilute Suspensions of Flexible Rods in a Newtonian Fluid. Archives of Computational Methods in Engineering, 2015, 22, 511-527.	6.0	18
33	Stress and strain amplification in a dilute suspension of spherical particles based on a Birdâ€“Carreau model. Journal of Non-Newtonian Fluid Mechanics, 2015, 221, 95-102.	1.0	23
34	On the multiscale description of dilute suspensions of non-Brownian rigid clusters composed of rods. Journal of Non-Newtonian Fluid Mechanics, 2015, 222, 34-44.	1.0	25
35	Direct simulation of concentrated fiber suspensions subjected to bending effects. Modelling and Simulation in Materials Science and Engineering, 2015, 23, 055007.	0.8	17
36	Toward modeling anisotropic yield stress and consistency induced by fiber in fiber-reinforced viscoplastic fluids. Journal of Non-Newtonian Fluid Mechanics, 2015, 220, 69-76.	1.0	19

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37	Enhanced dispersion of cellulose nanocrystals in melt-processed polylactide-based nanocomposites. Cellulose, 2015, 22, 483-498.	2.4	110
38	Rheological modeling of carbon nanotube suspensions with rodâ€“rod interactions. AICHE Journal, 2014, 60, 1476-1487.	1.8	24
39	On the use of interaction tensors to describe and predict rod interactions in rod suspensions. Rheologica Acta, 2014, 53, 445-456.	1.1	26
40	Characterisation and micromechanical modelling of the elasto-viscoplastic behavior of thermoplastic elastomers. Mechanics of Materials, 2014, 71, 114-125.	1.7	15
41	Design of clay/cement mixtures for extruded building products. Materials and Structures/Materiaux Et Constructions, 2013, 46, 999-1010.	1.3	30
42	Prediction of extrusion load and liquid phase filtration during ram extrusion of high solid volume fraction pastes. Powder Technology, 2013, 249, 258-268.	2.1	57
43	Effect of flax fibres individualisation on tensile failure of flax/epoxy unidirectional composite. Composites Part A: Applied Science and Manufacturing, 2013, 51, 62-70.	3.8	167
44	Observation of the structure of a composite polypropylene/flax and damage mechanisms under stress. Industrial Crops and Products, 2013, 43, 225-236.	2.5	79
45	Study of the fibre morphology stability in polypropylene-flax composites. Polymer Degradation and Stability, 2013, 98, 1216-1224.	2.7	58
46	Structure, mechanical properties and modelling of polypropylene for different degrees of crystallinity. Polymer, 2012, 53, 5873-5884.	1.8	45
47	Modelling of stress and strain amplification effects in filled polymer melts. Journal of Non-Newtonian Fluid Mechanics, 2012, 171-172, 8-16.	1.0	49
48	Effect of flow history on linear viscoelastic properties and the evolution of the structure of multiwalled carbon nanotube suspensions in an epoxy. Journal of Rheology, 2011, 55, 153-175.	1.3	38
49	Dissipative particle dynamics simulations for fibre suspensions in newtonian and viscoelastic fluids. Computer Methods in Applied Mechanics and Engineering, 2010, 199, 1593-1602.	3.4	9
50	Investigation of the rheological properties of short glass fiber-filled polypropylene in extensional flow. Rheologica Acta, 2009, 48, 59-72.	1.1	35
51	Modeling fiber interactions in semiconcentrated fiber suspensions. Journal of Rheology, 2009, 53, 49-72.	1.3	84
52	Rheological behavior of fiber-filled polymers under large amplitude oscillatory shear flow. Journal of Non-Newtonian Fluid Mechanics, 2008, 151, 89-100.	1.0	30
53	Numerical solution of the Fokkerâ€“Planck equation for fiber suspensions: Application to the Folgarâ€“Tuckerâ€“Lipscomb model. Journal of Non-Newtonian Fluid Mechanics, 2008, 155, 20-29.	1.0	34
54	Apport des essais d'indentation pour la modÃ©lisation du comportement mÃ©canique d'un polymÃ¨re semi-cristallin. Materiaux Et Techniques, 2008, 96, 95-103.	0.3	1

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55	Micro-mechanical model of TPE made of polypropylene and rubber waste. Polymer, 2007, 48, 3367-3376.	1.8	27
56	Stress overshoots of organoclay nanocomposites in transient shear flow. Journal of Non-Newtonian Fluid Mechanics, 2007, 141, 167-179.	1.0	108
57	Direct simulation for concentrated fibre suspensions in transient and steady state shear flows. Journal of Non-Newtonian Fluid Mechanics, 2006, 135, 46-57.	1.0	47
58	Rheological properties of long glass fiber filled polypropylene. Journal of Non-Newtonian Fluid Mechanics, 2005, 125, 25-34.	1.0	62
59	Shear and extensional properties of short glass fiber reinforced polypropylene. Polymer Composites, 2005, 26, 247-264.	2.3	59
60	Comportement rhÃ©ologique dans des Ã©coulements transitoires en cisaillement simple des polymÃ¨res fortement chargÃ©s en fibres courtes. Mecanique Et Industries, 2004, 5, 419-428.	0.2	0
61	COMPARISON OF RHEOLOGICAL PROPERTIES OF FIBER SUSPENSIONS WITH MODEL PREDICTIONS. Journal of Polymer Engineering, 2004, 24, .	0.6	27
62	Rheological properties of short fiber filled polypropylene in transient shear flow. Journal of Non-Newtonian Fluid Mechanics, 2004, 123, 19-32.	1.0	111
63	Rheological properties of short fiber model suspensions. Journal of Rheology, 2004, 48, 1023-1048.	1.3	96
64	Optimization of the tube-extrusion die for short-fiber-filled polymers. Composites Science and Technology, 1996, 56, 719-724.	3.8	11
65	Optimization of the Extrusion Process for Glass-Fiber-Reinforced Tubes. Journal of Thermoplastic Composite Materials, 1995, 8, 435-448.	2.6	4
66	Flow and Fiber Orientation Calculations in Reinforced Thermoplastic Extruded Tubes. International Polymer Processing, 1994, 9, 51-59.	0.3	30
67	Rheology of short glass fiber reinforced polypropylene. Journal of Rheology, 1992, 36, 525-542.	1.3	73
68	FIBER ORIENTATION IN EXTRUDED TUBES AND INJECTION MOLDED DISK WITH SHORT FIBER REINFORCED THERMOPLASTICS. , 1992, , 835-837.		0
69	Tensile Characteristics of Coconut Fibers Reinforced Mortar Composites. Advanced Materials Research, 0, 651, 269-273.	0.3	7
70	Effect of Coconut Fibers Addition to early Age Unfired Soil Lime Bricks Strength. Key Engineering Materials, 0, 594-595, 471-476.	0.4	5
71	Effect of Fibers Content on the Tensile Properties of Coconut Fibers Reinforced Cement Mortar Composites. Advanced Materials Research, 0, 742, 92-97.	0.3	5